

From: [Scott](#)
To: [Draft EIS Feedback; Columbia River Crossing;](#)
CC: [mike.obrien@cascade.sierraclub.org](#); [tim.gould@cascade.sierraclub.org](#); [erica.mahara@oregon.sierraclub.org](#); [scott.chapman@oregon.sierraclub.org](#);
Subject: Sierra Club DEIS Comments
Date: Tuesday, July 01, 2008 2:07:10 PM
Attachments: [SC DEIS Comment on CRC Final.doc](#)
[SC DEIS Comment on CRC Final.pdf](#)

Please find the attached DEIS comments on behalf of the Sierra Club.

Both files represent the identical set of comments but in two formats for your convenience. I am also sending copying both [DraftEISfeedback@columbiarivercrossing.org](#) and [feedback@columbiarivercrossing.org](#) on this transmittal and hope this does not cause any confusion.

You may direct any questions or feedback to me at the address below.

Sincerely,



Scott Chapman
Sierra Club Oregon Chapter
Land Use & Transportation Issue Coordinator
[scott.chapman@oregon.sierraclub.org](#)

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**Comments on the Columbia River Crossing
Draft Environmental Impact Statement
Sierra Club
6/30/08**

Columbia River Crossing
c/o Heather Gundersen
700 Washington Street, Suite 300
Vancouver, WA 98660

Ms. Gundersen:

O-028-001 The Sierra Club submits this comment in response to the recently issued DEIS for the Columbia River Crossing (CRC) project. The Sierra Club has members who live, work and recreate in the I-5 corridor and the larger project area that the CRC will impact. To further our mission to enjoy, explore, and protect the planet, the Sierra Club reviewed this DEIS and the CRC process. We appreciate that the CRC Project Staff has emphasized and created opportunities for informal public involvement throughout this process, as we believe public input is essential to identify a solution to the present condition of the CRC corridor.

Based on its review, the Sierra Club requests the Columbia River Crossing issue a Supplemental EIS providing a full range of reasonable alternatives and fully disclosing the proposals' environmental and health impacts and associated benefits from mitigation measures. NEPA requires this SEIS include options that will not increase car capacity or induce sprawl, while promoting alternative transportation, bicycling and pedestrian access.

O-028-002 **The DEIS purpose and need statement is insufficient under NEPA**

The DEIS lists improving I-5 mobility for cars and freight, improving safety and structural integrity, and shortening travel times through addressing traffic demand as the CRC's purpose. The project needs identified are congestion, increasing traffic demand, impaired freight mobility, limited connectivity, transit options, bicycle/pedestrian access, and safety and structural problems. However, the purpose and need statement omitted timely and pertinent factors which resulted in the exclusion of reasonable alternatives from consideration.

O-028-003 The imperative to respond to climate change and reduce the greenhouse gas (GHG) emissions from our transportation system demands that project purposes include decreasing future traffic demand, rather than focusing on increased capacity to accommodate projected growth. The purpose and need statement does not incorporate the necessary environmental and health concerns. The public needs a bridge that will reduce air and water pollution associated with the current I-5 crossing, yet alternatives that would produce environmental and health benefits were not adequately considered. The statement should also address climate change mitigation in its list of needs; Washington, Oregon, Vancouver and Portland have all made commitments to reduce greenhouse gas emissions well below 1990 levels. Building a \$4 billion

O-028-004



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O-028-001

Thank you for your comments. We do not agree with your stated rationale for preparing a Supplemental Draft EIS. See responses to each of the specific comments below.

O-028-002

The Purpose and Need is based on extensive analysis of the existing transportation problems in the I-5 CRC corridor, and reflects extensive feedback from the public and stakeholder groups. The Purpose and Need focuses largely on metrics that do not inherently require substantial, or exclusive, increases in highway capacity. On-going analysis has demonstrated that the Purpose and Need is best met by a multimodal alternative that improves highway, transit, and bicycle and pedestrian facilities, and adds tolling to the highway river crossing.

Regarding climate change, while there was no standard threshold or standardized methodology for estimating greenhouse gas emissions when the DEIS was being developed, the project team worked with federal and state agencies to develop an appropriate analysis methodology that would allow disclosure of impacts and a comparison of alternatives. The DEIS, Chapter 3, Section 3.19.8, summarized the results of GHG emissions and climate change analysis conducted for the DEIS alternatives. Further detail was included in the Energy Technical Report that was released along with the DEIS.

Following the public comment period on the DEIS, the CRC project team was requested by the Metro Council and Portland City Council to secure independent review of the GHG evaluation conducted for the DEIS. The "Columbia River Crossing Greenhouse Gas Emission Analysis Expert Review Panel Report" (January 8, 2009) describes the activities and findings of the independent review panel. The panel concluded that the GHG evaluation methods and the findings in the DEIS were valid and reasonable. They also found that the findings were likely conservative,

O-028-004 bridge that takes the region further from its climate change goals, rather than helping accomplish them, clearly fails to meet this region's needs.

O-028-005 **The DEIS range of alternatives is insufficient under NEPA**

NEPA requires a project's DEIS to consider a full range of reasonable alternatives. However, the CRC DEIS fails to consider alternatives that address the asserted purpose and need without increasing car capacity, and does not justify a finding that those alternatives are not reasonable. The DEIS implies, but does not factually support, that a bridge proposal cannot address congestion without increasing highway capacity. Nowhere does the DEIS consider whether tolling, high capacity transit such as light rail, modern design, and bicycle/pedestrian access combined could adequately address congestion. A reasonable alternative including these components would achieve long-term traffic and environmental benefit, by avoiding the induced traffic and sprawl the current build alternatives will produce.

O-028-006 **The DEIS fails to fully analyze and disclose environmental impacts**

Repeatedly throughout the document, the DEIS foregoes real impact analysis until the FEIS. This undermines NEPA's requirement of full disclosure of environmental impacts. In its water quality, ecosystems and air quality analyses, the DEIS relies on the fact that the locally preferred alternative has not yet been chosen to delay analysis of each alternative's environmental impact. NEPA requires this analysis occur in the DEIS, so the public has the opportunity to comment on the predicted impacts of various alternatives. A locally preferred alternative does not preempt the obligation of the project agencies to analyze and select a preferred alternative consistent with NEPA and SEPA processes.

O-028-007 **The replacement bridge alternatives will induce traffic, increasing greenhouse gas emissions and air pollution**

The DEIS did not account for the induced traffic that will result from increased highway capacity. As a result, the DEIS' climate change and air quality analyses underestimate future pollution from the CRC project. Induced growth studies¹ indicate congestion benefits from increased highway capacity will be short-lived; long-term problems with induced sprawl in areas adjacent to the bridge influence area and more immediate induced traffic from decreased congestion, will quickly lead to overall increases in vehicle miles traveled and greenhouse gas emissions, as well as other automobile emissions. Pollutants of concern include carbon monoxide, oxides of nitrogen, particulates, and carcinogenic air toxics such as benzene.

Even under the DEIS' traffic projections, none of the build alternatives will achieve a benefit in greenhouse gas emissions compared with the no-build alternative. Certainly one of the alternatives in a full range of reasonable alternatives must at least be better than the do-nothing approach. For example, a transit enhanced option that extends high capacity transit over the river without increases in vehicle capacity would likely have different GHG emission outcomes.

¹ Todd Litman, September 2007, "Generated Traffic and Induced Travel: Implications for Transport Planning: Available at <http://www.vtpi.org/gentraf.pdf>

and that the LPA would likely reduce GHG emissions even more than estimated in the DEIS. The GHG and climate change analysis in Chapter 3 (Section 3.19) of the FEIS updates the analysis that was in DEIS, but the basic conclusion that the LPA would have lower emissions than No-Build, remains unchanged.

Based on the modeling and analysis, the CRC LPA is expected to significantly increase transit ridership and reduce the number of vehicles crossing the river. This shift toward transit, reduction in auto crossing, reduced congestion, removal of bridge lifts, and lower accident rates, are all factors that contribute to lower CO2 emissions with the project than without it. These factors will also make it easier for the region to meet goals for reducing GHG emissions.

O-028-003

As a transportation project, it is fundamentally addressing transportation needs. However, there are other objectives that the project will also address, including community and environmental benefits. In Chapter 3 the FEIS describes these impacts, including beneficial effects on water quality and air quality.

O-028-004

Please see the response to Comment O-035-037 regarding greenhouse gas reduction goals.

Emissions from I-5 and other area roads are projected to increase by 2030 due to population growth. The EIS analysis indicates that the LPA would reduce 2030 GHG emissions compared to No-Build. Measures to further reduce GHG emissions were listed in the DEIS and FEIS. See Section 3.19.10 in the FEIS.

- O-028-007** Yet, under a realistic traffic assessment, all of the proposed build alternatives will exacerbate climate change impacts.
- O-028-008** Air quality may fare equally badly; though the DEIS offers no real analysis of pollutant impacts from the CRC project, increased traffic volume and vehicle miles traveled will produce more air emissions than an alternative that does not increase car capacity. The DEIS avoids this fact by assuming that compliance with National Ambient Air Quality Standards will adequately protect public health. What this fails to take into account, however, are the risks of pollutant “hotspots” in communities near the I-5 corridor. Ambient monitoring data cannot separate out neighborhood-level health risks, but they must be considered under NEPA’s assessment of all environmental impacts.
- O-028-009** The DEIS further underestimates the results of induced traffic by not fully accounting for impacts on development. As recently cited in the Oregonian, CRC staff instructed traffic forecasters for the project to assume that different bridge alternatives would “have no influence on development patterns” and that the twelve lane replacement option “would not trigger any more growth” than maintaining current bridge capacity.²
- O-028-010** **Rationale for Requesting Supplemental EIS**
- In its evaluation of alternatives in the CRC project DEIS, Sierra Club supports alternative transportation modalities, including a light rail system and other forms of mass transit that link both sides of the river, and easy access by foot and bike. Sierra Club opposes a crossing that increases general purpose vehicle capacity. Such an increase will lead to increases in greenhouse gas emissions and prevent the cities, region, and states from achieving climate change impact reduction goals. We believe that a reasonable solution will emphasize good maintenance of infrastructure, safety, and the movement of people instead of vehicles. We favor the levying of variable price tolls on vehicles using the CRC corridors to lessen traffic demand and peak congestion. The Sierra Club is concerned that environmentally beneficial, reasonable alternatives were not advanced to the Draft Environmental Impact Statement stage, and that the CRC Project Staff did not make all supporting and opposing documents available to the public upon request, as required by NEPA.

² The Oregonian, “Columbia River bridge plans ignore effects of growth” (June 22, 2008), Available at <http://www.oregonlive.com/news/oregonian/index.ssf?base/news/1214029515244280.xml&coll=7>

O-028-005

The evaluation of the five alternatives in the DEIS was preceded by an extensive evaluation and screening of a wide array of possible solutions to the CRC project's Purpose and Need statement. Chapter 2 of the DEIS (Section 2.5) explains how the project's Sponsoring Agencies generated ideas and solicited the public, stakeholders, other agencies, and tribes for ideas on how to meet the Purpose and Need. This effort produced a long list of potential solutions, many of which were non-auto oriented options such as various transit modes and techniques for operating the existing highway system more efficiently without any capital investment. These options were evaluated for whether and how they met the project's Purpose and Need, and the findings were reviewed by project sponsors, the public, agencies, and other stakeholders. Alternatives that included only TDM/TSM strategies, or provided only transit improvements, would provide benefits, but could only address a very limited portion of the project's purpose and need. This extensive analysis found that in order for an alternative to meet the six "needs" included in the Purpose and Need (described in Chapter 1 of the DEIS), it had to provide at least some measure of capital improvements to I-5 in the project area. Alternatives that did not include such improvements did not adequately address the seismic vulnerability of the existing I-5 bridges, traffic congestion on I-5, or the existing safety problems caused by sub-standard design of the highway in this corridor. The DEIS evaluated alternatives with more demand management (higher toll) and increased transit service with less investment in highway infrastructure improvements (Alternatives 4 and 5) compared to the toll and transit service levels included in Alternatives 2 and 3. The additional service and higher toll provided only marginal reductions in I-5 vehicle volumes, and they came primarily at the cost of greater traffic diversion to I-205. This analysis found that a more balanced investment in highway and transit, as represented by Alternatives 2 and 3, performed considerably better on a broad set of criteria.

O-028-010 Conclusion

Because the CRC DEIS lacks the information necessary to determine the proposed alternatives' real environmental and health impacts, and because the alternatives proposed do not meet the region's needs or represent all reasonable options, the Sierra Club requests Columbia River Crossing create a Supplemental EIS. To comply with NEPA, and produce the best possible bridge proposal, this SEIS should provide a true range of alternatives that address relevant environmental objectives, along with sufficient information to determine their impacts. Thank you for your consideration.

Sincerely,

Erica Maharg
Sierra Club Oregon Chapter
Chapter Executive Committee Member
Columbia Group Chair

Michael O'Brien
Sierra Club Cascade Chapter
Chapter Chair

Sierra Club Comments on CRC DEIS

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O-028-006

The project has conducted impact analysis for all elements of the environment, and summarized this information in the DEIS, with additional detail provided in technical reports distributed on CD with the DEIS and made available locally as well as on the project web site. Regarding the specific elements mentioned in this comment, for air quality see DEIS Section 3.10; for water quality see Section 3.16; and for ecosystems see Section 3.14.

O-028-007

As described in Chapter 3, Section 3.4 of the DEIS and in Appendix A: Indirect Effects: Induced Growth of the CRC Land Use Technical Report (2008), highway capacity improvements and access improvements can induce development in suburban and rural areas that were not previously served, or were greatly underserved, by highway access. The DEIS outlines a comprehensive analysis of the potential induced growth effects that could be expected from the CRC project. A review of national research on induced growth indicates that there are six factors that tend to be associated with highway projects that induce sprawl. These are discussed in Indirect Effects Technical Report. Based on the CRC project team's comparison of those national research findings to CRC's travel demand modeling, Metro's 2001 land use / transportation modeling, and a review of Clark County, City of Vancouver, City of Portland and Metro land use planning and growth management regulations, the DEIS and the FEIS conclude that the likelihood of substantial induced sprawl from the CRC project is very low. This finding was confirmed by Metro's 2010 running of the MetroScope model. In fact, the CRC project, because of its location in an already urbanized area, the inclusion of new tolls that manage demand, the inclusion of new light rail, and the active regulation of growth management in the region, the CRC project will likely reinforce the region's goals of concentrating development in regional centers, reinforcing existing corridors, and promoting transit and pedestrian friendly development and

development patterns.

In October, 2008, the project convened a panel of national experts to review the travel demand model methodology and conclusions, including a land use evaluation. The panel unanimously concluded that CRC's methods and the conclusions were valid and reasonable. Specifically, the panel noted that CRC would "have a low impact to induce growth...because the project is located in a mature urban area," and that it would "contribute to a better jobs housing balance in Clark County...a positive outcome of the project". These results are summarized in the "Columbia River Crossing Travel Demand Model Review Report" (November 25, 2008).

For a more detailed discussion regarding potential indirect land use changes as a result of the CRC project, including the likely land use changes associated with the introduction of light rail, please see Chapter 3 of the FEIS.

Regarding greenhouse gas emissions, while there was no standard threshold or standardized methodology for estimating greenhouse gas emissions when the DEIS was being developed, the project team worked with federal and state agencies to develop an appropriate analysis methodology that would allow disclosure of impacts and a comparison of alternatives. The DEIS, Chapter 3, Section 3.19.8, summarized the results of GHG emissions and climate change analysis conducted for the DEIS alternatives. Further detail was included in the Energy Technical Report that was released along with the DEIS.

Following the public comment period on the DEIS, the CRC project team was requested by the Metro Council and Portland City Council to secure independent review of the GHG evaluation conducted for the DEIS. The "Columbia River Crossing Greenhouse Gas Emission Analysis Expert Review Panel Report" (January 8, 2009) describes the activities and

findings of the independent review panel. The panel concluded that the GHG evaluation methods and the findings in the DEIS were valid and reasonable. They also found that the findings were likely conservative, and that the LPA would likely reduce GHG emissions even more than estimated in the DEIS. The GHG and climate change analysis in Chapter 3 (Section 3.19) of the FEIS updates the analysis that was in DEIS, but the basic conclusion that the LPA would have lower emissions than No-Build, remains unchanged.

Based on the modeling and analysis, the CRC LPA is expected to significantly increase transit ridership and reduce the number of vehicles crossing the river. This shift toward transit, reduction in auto crossing, reduced congestion, removal of bridge lifts, and lower accident rates, are all factors that contribute to lower CO₂ emissions with the project than without it. These factors will also make it easier for the region to meet goals for reducing GHG emissions.

Regarding air quality, the evaluation presented in the DEIS assessed how the project would affect emissions of pollutants regulated by state and federal standards. Oregon and Washington, as well as the federal government, have ambient air quality standards. These standards are based on human health, and provide thresholds that indicate when concentration of a pollutant could pose a health risk. This evaluation included an analysis to demonstrate this project would allow the region to retain conformity with state and federal air quality standards for Carbon Monoxide (CO). The CO analysis analyzed potential CO impacts at intersections where traffic volumes would be affected by the project. See the Air Quality Technical Report for a detailed explanation of the state and federal regulations concerning air quality and the evaluation of whether this project could affect compliance with these regulations. See Section 3.10 of the DEIS for an explanation the pollutants regulated by state and federal law.

The evaluation in the DEIS found "that future (no-build or build) emissions of all pollutants would be substantially lower than existing emissions for the region and the subareas" (page 3-277). These reductions in emissions are largely the result of on-going reductions in vehicle emissions that will occur with or without the project, and are based on relatively standard assumptions regarding future vehicles and fuel. The anticipated vehicle emission reductions are based largely on regulated improvements in fleet fuel efficiency standards, and regulated improvements related to cleaner gasoline and diesel fuels. Any extraordinary improvements in fuel efficiency or fuels would result in even greater emission reductions.

Projected reductions in vehicle fleet emissions would result in a 25% to 90% reduction in criteria pollutants over existing conditions, even with the anticipated growth in population, employment and VMT. In addition, the build alternatives would generally provide further reductions in vehicle emissions at the regional level and for some of the subareas along I-5. Emissions would be slightly higher with the project than with No-Build in some subareas, as discussed in the DEIS (Chapter 3, Section 3.10) and the FEIS (Chapter 3, Section 3.10).

There is no substantive or procedural need or purpose to be served in developing a supplemental EIS related to air quality. Impacts have been analyzed and disclosed in the DEIS and refined in the FEIS, and this information has been made available to stakeholders and decision makers.

O-028-008

The LPA would reduce the number of autos crossing the river, reduce durations of congestion and reduce VMT. The Air Quality analysis in the FEIS (Section 3.10) evaluates regional emissions, subarea emissions, and also carbon monoxide hotspots. The updated analysis included in the Air Quality Technical Report also contains new monitoring data for

the Harriet Tubman Middle School, located adjacent to I-5, that assessed existing MSAT and air toxic pollutant concentrations.

O-028-009

Traffic forecasts reported in the DEIS and used to inform decisions on a locally preferred alternative were derived from adopted regional employment and population forecasts and state-of-the-art modeling and evaluation conducted by Metro, RTC and the project team, and reviewed by all project sponsor agencies as well as FTA and FHWA. In addition, an independent panel of traffic modeling experts was convened in October 2008 to review the modeling methods and findings. These experts concluded that the project's approach to estimating future travel demand was reasonable and that it relied on accepted practices employed in metropolitan regions throughout the country. These findings are summarized in the "Columbia River Crossing Travel Demand Model Review Report" (November 25, 2008). This independent review confirmed the approach CRC modeling used to address multiple variables that can affect travel demand, including gasoline prices, tolling, travel demand measures and induced development.

More specifically, the travel demand models were using the same land use inputs for the 20 year planning period. This method is consistent with professional travel demand modeling and is routinely employed at Metro, and with other transportation planning agencies. The land uses are set by growth management plans, which are also subject to much modeling, testing, and impact analysis. The Metroscope model has been developed to better model real estate changes related to infrastructure improvements. As discussed in the DEIS and the FEIS, the Metroscope model was used to test a new river crossing with light rail during the Trade and Transportation Partnership project. The results showed a very modest adjustment in locational decision making. In fact, it showed a slight increase in housing and employment demand nearer to the I-5 corridor within the urban cores of Vancouver and Portland.

O-028-010

Your support for improvements to transit, access by bike and foot, safety, variable price tolls and the emphasis on moving people rather than vehicles, is noted. The locally preferred alternative reflects these values.

We also note your opposition to increasing vehicle capacity, but would point out that although the CRC project would increase vehicle capacity, it would not increase greenhouse gas emissions. As noted in the response above, and summarized in the climate change section of the DEIS (pp. 3-430 to 3-437), the project would reduce, not increase, greenhouse gas emissions compared to No-Build.

The project evaluated numerous alternatives, but did not advance alternatives that could not adequately meet the stated purpose and need for the proposed action. Where adverse effects could not be avoided, the project has further considered measures to minimize as well as mitigate such impacts. We do not see the need for a Supplemental EIS in this regard. A full range of reasonable alternatives has already been evaluated.

All relevant documents were made available to the public either through request for a hard copy of through the project's public web site.